

## **Effectiveness of Work Skills Programmes for Offenders with Mental Disorders: A Systematic Review**

### **Authors**

Emily C Talbot <sup>1</sup>,

Email: [Emily.Talbot@nottingham.ac.uk](mailto:Emily.Talbot@nottingham.ac.uk)

Birgit Völlm <sup>1,2</sup>

Email: [Birgit.vollm@nottingham.ac.uk](mailto:Birgit.vollm@nottingham.ac.uk)

Najat Khalifa<sup>1,2</sup> \*

Email: [Najat.Khalifa@nottingham.ac.uk](mailto:Najat.Khalifa@nottingham.ac.uk)

Telephone: +44 (0) 1158231269 (UK).

<sup>1</sup>Section of Forensic Mental Health, Division of Psychiatry and Applied Psychology, University of Nottingham, Innovation Park, Triumph Road, Nottingham, NG7 2TU, UK.

<sup>2</sup>Nottinghamshire Healthcare NHS Trust, UK.

*\*Author for correspondence*

Keywords: work skills, supported employment, mental disorder, offending.

## **ABSTRACT**

**Background:** Academic literature and government initiatives have emphasised the importance of work as a means of improving health and reducing reoffending among offenders with mental disorders. Whilst a number of work skills programmes have shown promise for offenders more generally, evaluation of evidence for their effectiveness for those with a mental disorder is lacking, particularly in relation to improving employment outcomes.

**Aims:** To assess the evidence on the effectiveness of work skills programmes for mentally disordered offenders.

**Method:** A systematic review of the literature was conducted by searching the following databases: PsycINFO, CINAHL, Cochrane Library (Trials Register), Embase and Medline, using search terms which included Work Skills Programme\*, Offend\* and Mental\*. Any empirical comparison study of work skills programmes was included in this review. The primary outcome was employment. Secondary outcomes included employment outcomes, reoffending, education, mental state, substance misuse, global functioning, quality of life, acceptability, leaving the study early and cost effectiveness or other economic outcomes.

**Results:** Six articles met the inclusion criteria. Collectively they provided limited evidence that work skills programmes increase the likelihood of people with mental disorder who are offenders obtaining employment in the short term, but there are insufficient studies to determine the long-term impact of work skills programmes.

**Conclusions:** There is modest evidence to support inclusion of specific work skills programmes in the treatment of offenders with mental disorder. Future studies should be of theoretically driven programmes, such as Individual Placement Support (IPS), use a standard set of relevant outcome measures and long enough follow-up for testing the effectiveness of any programme on engagement in competitive, paid employment as, even if skilled, offenders with mental disorder must constitute a hard to place group.

## **INTRODUCTION**

Unemployment has a number of undesirable consequences for each individual concerned, their families and the community. These include poverty, low self-esteem, social deprivation, increased reliance on state benefits and higher risk of criminality for the individual and lower economic growth for the community (Rinaldi et al. 2008; Sainsbury Centre Briefing 2010). Conversely, work has been associated with increased self-worth, social integration and a sense of personal achievement, as well as income (Rinaldi et al., 2008) together with a reduction in offending rates (Lipsey, 1995; May et al., 2008). Furthermore, work helps individuals with their mental health problems and enhances their self-esteem and optimism (Boyce et al., 2008).

In England and Wales, once released from prison, over 45% of adult offenders reoffend within a year. This figure has been more-or-less stable since 2005 (Ministry of Justice, 2014a). Offending rates are significantly lower among those who work (Visser et al. 2006), but levels of unemployment amongst offenders are high (Ministry of Justice 2014b). Offenders face many barriers to employment, resulting from the stigma attached to imprisonment, social isolation, substance misuse and low educational attainment, all of which maintain the inverse relationship between incarceration and subsequent employment (Dunn & Seymour 2008; Nagin & Waldfogel, 1998; Völlm et al., 2014; Western, 2002).

Employment reduces the likelihood of reoffending (Visser et al., 2006). Despite this, employers are increasingly reluctant to hire ex-offenders (Shaw Trust 2010), particularly those with convictions for arson or sex offences. One study showed that about 70% of employers would be highly averse to hiring such individuals (Haslewood-Pocsik et al., 2008). Some offenders may be further disadvantaged by obligations to disclose both spent and unspent convictions, comply with the requirements of the Sex Offenders' Register, the Rehabilitation of Offenders Act 1974 and/or geographical exclusion zones.

People with severe mental disorders have even higher rates of unemployment compared with the general population (Kinoshita et al., 2013). The 2013 Labour Force Survey reported significantly lower employment rates for people with mental health difficulties (37%) compared with the general population (71%), a finding that is particularly worrying as over 1.7 million people were in contact with mental health services between 2012 & 2013 (Health and Social Care Information Centre, 2014). Employment rates as low as 8% have been reported in individuals with schizophrenia (Bevan et al., 2013), although most of these people want to work and most, with the right support, can work.

Mental disorders are highly prevalent among offenders in prison (Bradley, 2009; Fazel & Danesh, 2002; Singleton et al., 1998), those under community supervision by probation services (Mair & May, 1997), and especially so in young offenders (Stewart, 2008). Antisocial personality disorder has been documented in up to two-thirds of prisoners (Singleton et al., 1998) and is particularly associated with increased rates of unemployment as well as homelessness, relationship difficulties, substance use and recidivism (Khalifa et al., 2010). Offenders with mental disorders fare even worse than those without for paid employment, as they face stigma attributed to both their mental health problems and offending histories (Sneed et al., 2006). Explanations include their greater likelihood of impaired social problem solving than non-offending peers as well as poverty, low self-esteem and low quality of life experience (Davies et al., 2007; Dodge et al., 1995; Farrington, 2010; Imbach et al., 2013; McMurran et al., 1999; Rice & Harris, 1997).

Both academic literature and government initiatives have emphasised the importance of work as a means of improving health outcomes and reducing reoffending (Crowther et al., 2001; Rinaldi et al., 2008; Samele et al., 2009; Singleton et al., 1998). This is as likely to be true for offenders with mental disorder, for whom employment may not only support and encourage interaction with other community members and provide a sense of

accomplishment but also act as a ‘therapeutic agent’ (Sneed et al., 2006), but they are often denied access to employment programmes whilst in the criminal justice system (Sainsbury Centre Briefing, 2010); poor levels of community employment support for them significantly increases the likelihood that they will re-enter the criminal justice system (Sneed et al., 2006). Whilst attention to improving employment outcomes for mentally disordered offenders is limited, there are a number of work skills programmes designed for offenders in general or for non-offenders with mental disorders, which have shown some promise (Samele et al., 2009; Bond, 2004; Crowther et al., 2001; Kinoshita et al., 2013). These include *Workout*, an adapted version of the American *Centre for Employment Opportunities* scheme, which uses life skills classes, and extensive post placement services to help offenders obtain employment and *Individual Placement Support*, which aims to get people with mental illness into work as quickly as possible and provide intensive on the job support. These programmes have proved successful but it is unclear whether they would be of any help to mentally disordered offenders.

Our aim was to examine published literature to determine the effectiveness of work skills programmes delivered to mentally disordered offenders when compared to educational, psychological, pharmacological and other vocational interventions, such as supported employment and prevocational training. Outcomes of interest included employment, education and reoffending.

## **METHODS**

### **Search Strategy**

Studies were identified by searching, PsychINFO (1806 – 2014), CINAHL (1973-2014), Cochrane Library Trials Register (2004 – 2014), Embase (1980 – 2014) and Medline (1946 – 2014) using relevant search terms for work/employment, offending and mental disorder adapted to the capability of individual databases. The full search strategy can be found in the appendix. Searches of Google and Google scholar were also completed to capture grey literature and other relevant publications. Publications in all languages were considered for inclusion.

### **Eligibility Criteria**

Randomised controlled trials (RCTs), non-randomised but controlled studies and cohort studies of work skills programmes for offenders with mental disorders were included. Reviews, expert opinions, editorials, non-empirical papers and qualitative studies were excluded from our review. Mentally disordered offenders of any age were considered. It was essential that one intervention had been a work skills programmes or similar interventions, but no comparison intervention – psychological, social or pharmacological – was excluded. Works skills programme/training was defined as any intervention with a stated aim of providing offender-patients with skills that would enhance their chances of employment in the open market.

### **Outcome Measures**

Due to the lack of consensus on outcome measures in this field, we derived a set from well-designed RCTs of Individual Placement Support (IPS - a form of supported employment) for people with mental disorder literature (Burns et al., 2007; Kinoshita et al.,

2013). The primary outcome measure was the proportion of people entering competitive employment (working for at least 1 day) in each programme. The 11 secondary outcomes were: additional employment outcomes, reoffending, education, mental state, substance abuse, global functioning, quality of life, acceptability, leaving the study early and cost effectiveness or other economic outcomes.

### **Study Selection**

After removing duplicate titles, one reviewer (ET) selected articles for further reading from titles and abstracts generated by the search; in cases of uncertainty, a second reviewer (NK) also considered the titles and abstracts. Authors of selected articles were contacted to enquire about on-going or unpublished research relevant to this review. Reference lists of papers chosen for inclusion were checked to ensure relevant references had not been missed.

### **Risk of Bias**

The risk of bias of eligible RCT studies was assessed using the Cochrane risk of bias table (Higgins et al., 2011). The quality of non-RCT studies was assessed using an adapted risk of bias table (Sterne et al., 2014).

### **Data extraction**

A data extraction sheet was developed and information was retrieved on study objectives, design, setting, participant information, intervention, study quality and outcomes. Data was extracted by the first author (ET); one third of the files were randomly selected for extraction blind to that completed by the first author and no discrepancies emerged (NK).

## **RESULTS**

### **Results of Electronic Search**

Initial electronic searches, completed in February 2014 returned over 17,500 titles; from screening titles, 285 references appeared potentially relevant; and upon inspection of abstracts and after duplicates were removed, 33 potentially eligible studies were identified for full text reading (See Figure 1). It was not possible to retrieve the full text of one article. Twenty-seven further articles were found to be ineligible on full reading. Six articles therefore met the inclusion criteria and were included in this review.

### **Study Characteristics**

#### *Design*

Table 1 summarises intervention and study characteristics. There were three randomised controlled trials (Twentyman et al., 1978; Hall et al., 1981; Schaeffer et al., 2014), two non-randomised but controlled trials (LePage et al., 2011; LePage et al., 2013) and one retrospective cohort study (Evans et al., 2010). It was not possible to ascertain if a sub-sample of LePage et al, (2011) participants also participated in the LePage et al (2013) study, so for the purposes of this review we have considered them as separate papers.

All studies compared a work skills programme with another employment focused approach or treatment as usual. Five of the six articles reported primary data and one (Evans et al., 2010) secondary analysis of previously collected data. Intervention times ranged from 4 days to 6 months, with follow up times ranging from as little as two weeks up to 31 months. Differences in interventions, measures and follow-up times meant that there was not sufficient homogeneity for a meta-analysis.



### *Risk of Bias*

Assessment of risk of bias confirmed that one study had a low risk of bias (Schaeffer et al 2014) and three studies a moderate risk of bias (LePage et al., 2011; LePage et al., 2013; Evans et al., 2010). One study was found to have a high risk of bias (Hall et al., 1981) and it was not possible to assess the risk of bias for one study (Twentyman et al., 1978) due to poor reporting of the study procedure. No studies were excluded based on the assessment of risk of bias.

### *Interventions*

Work skills programmes in the identified studies varied considerably. One RCT (Schaeffer et al., 2014) compared the effects of 6 months community restitution apprentice focused training (CRAFT), a programme designed to train and place juvenile offenders in the building industry, with standard educational and vocational services available through the standard national school system and community organisations. Control participants in Hall et al's (1981) study had a 3 hour meeting giving them information about employment resources, while the 'treatment' arm participants had this meeting and also attended 8 hours of employment workshops, consisting of interview training, information about completing application forms and job search procedures.

Evans et al. (2010) compared drug treatment with and without employment services, where the latter were regarded as accessed if the participant had seen an employment specialist at least once. Twentyman et al. (1978) compared vocational training sessions, which included information about where to find jobs, interview role-plays and job application form training against a programme which incentivised participants to submit job applications by paying them for each form submitted. Both LePage et al. studies (2011, 2013) evaluated three conditions. Basic condition participants had access to vocational resources at the

Veterans Employment Resource Center (VERC), whilst self-study participants had access to the About Face Vocational Manual, which covered important employment resources such as the development of adaptive job skills. Full programme participants had access to all resources the basic and self-study participants received *and* personal support from vocational staff.

### *Settings*

All included studies were from the United States of America (USA). Four of them were community based and two in the grounds of an urban medical centre (LePage et al., 2011; LePage et al., 2013).

### *Participants*

Sample sizes ranged from 11 to 1453, and most participants were male. Four studies (Evans et al., 2010; Hall et al., 1981; LePage et al., 2011; Schaeffer et al., 2014) reported that the primary mental health problem was substance abuse/dependence. Whilst LePage et al., (2013) reported that participants had depression, a psychotic disorder or substance use disorder. One study did not specify the disorders, but stated that all participants had a history of psychiatric referral or intervention (Twentyman et al., 1978).

## **Effects of interventions**

### ***Primary outcomes***

#### *Employment*

Three studies used employment, as defined in our review, as their primary outcome (Evans et al., 2010; Schaeffer et al., 2014; LePage et al., 2013). The first two found that, compared to

standard educational services/drug treatment without employment services, work skills programmes did not increase the number of hours worked or the number of days for which individuals were paid. LePage et al. (2013) measured employment in months; participants in the full programme worked more months than those in the basic job search and self-study vocational manual conditions.

### ***Secondary outcomes***

#### *Education*

Only Schaeffer et al. (2014) considered the impact of work skills programmes on educational outcomes. They found that youths who took part in the work skills programme attended a general equivalency diploma (GED) programme for significantly more months than those who received standard educational services.

#### *Time before employment*

Four studies (Hall et al., 1981; LePage et al., 2011; LePage et al., 2013; Twentyman et al.'s (1978) reported time to first competitive employment. All four studies found significant differences between experimental and control groups, with work skills programme participants finding work more quickly than comparison participants. Twentyman et al.'s (1978) results might, however, be questioned because they used parametric statistics, despite highly unequal variances.

#### *Reoffending*

Only two studies reported outcomes related to reoffending. Official records of arrest in one study (Schaeffer et al. 2014) did not differ for the work programme group. Youths did report significant decreases over time in general delinquency and crime against the person but

there was no intervention effect. Evans et al. (2010), whilst not reporting statistically significant changes in reoffending, noted that fewer offenders who had access to employment services were arrested compared with those who did not have access to employment services.

#### *Mental State*

Only one study considered mental health as an outcome (Schaeffer et al., 2014), finding no difference in ‘internalising’ or ‘externalising’ symptoms between work skills programme and comparison groups.

#### *Substance misuse*

Two studies reported on substance misuse as an outcome (Evans et al., 2010; Schaeffer et al., 2014). Neither found significant differences between intervention and treatment as usual groups, although the Schaeffer study reported decreased substance related problems, as measured by the Global Appraisal of Individual Needs (GAIN) subscales.

#### *Acceptability*

Only one study reported on participant appraisal of the programme. Programme ratings were higher from participants receiving work skills training than those getting basic employment advice (Hall et al., 1981).

#### *Cost effectiveness of treatment and other economic outcomes*

Three studies reported on participants’ earnings. Schaeffer et al. (2014) found that involvement in a work skills programme did not affect participants’ wages/incomes. Evans et al. 2010, however, found significantly more participants who received employment services were paid for work. Twentyman et al. (1978) found higher pay associated with work skills training, but unequal variances may have affected these results.

## Discussion

This is the first systematic review of studies evaluating work skills programmes for mentally disordered offenders. We found only six unique studies, which together indicate that programme participants are more likely to receive paid employment and to get it more quickly than their peers who had not been in such programmes, although once in work, work skills groups do not seem to get any more hours of employment. In addition, work skills programmes appeared to have a significant and positive impact upon involvement in education compared with other interventions. After work skills programme completion, as a group, participants were no different from their peers without the intervention in terms of mental health, substance use or reoffending.

Support into the work environment and during employment is recognised as a key feature of successful employment and other relevant outcome successes (Samele et al., 2009), but in none of the studies we reviewed was there a record of participants receiving ongoing support. It is arguable, therefore, that the advantages reported for work skills programmes were the minimum achievable.

Work skills programmes considered within this review do not seem to be underpinned by a unified theoretical framework, making it difficult to draw firm conclusions from the results. Individual Placement and Support (IPS), a well-established form of supported employment, operates according to a set of principles which include getting those with mental health problems into competitive employment quickly, providing on the job training – rather than focusing on pre-placement training -, and ongoing support if needed (Kinoshita et al., 2013). There is emerging RCT evidence in favour of IPS as the most effective approach for helping people with severe mental disorders get paid employment (Bond, 2004; Burns et al., 2007; Crowther et al., 2001; Kinoshita et al., 2013; Rinaldi et al., 2008). Despite the empirical support for IPS and its effectiveness for those with mental health problems, the

evidence base for its effectiveness with offenders who have mental health problems is extremely limited (Sainsbury Centre for Mental health, 2010).

Our review has several limitations, as we found only a small number of studies, with methods too heterogeneous to allow data pooling for meta-analysis. Sample sizes were generally small, and it was not possible to retrieve the full text of one article. Half of the studies included had short follow-up periods (2-12 weeks), making interpretation of any employment outcome difficult as it is arguable that people with the disadvantages of both a mental disorder and an offending history may take far longer to find a job because of the barriers to employment that they face. Payment in the form of money or vouchers was offered to participants in five out of six studies. Given that many of the participants had issues with substance use, this may have acted as an incentive to engage in a work skills programme but without an actual desire to enter and stay in employment.. Three studies (Evans et al., 2010; Hall et al., 1981; Twentyman et al., 1978) used outcomes, which they had not defined to a standard that would allow a reasonably competent researcher to replicate their study, introducing the risk of bias. Finally there is a lack of consensus within the work skills literature about which outcome measures to use, which was why we attempted to draw up our own outcome checklist. We then found that most studies had insufficient data for us to be able to incorporate more than seven (any employment, time to employment, reoffending, education, mental state, substance abuse, acceptability and cost effectiveness or other economic outcomes) of the 12 into our descriptive analysis; global functioning, quality of life, acceptability, leaving the study early were not measured in any of the studies included in this review.

The small number of high quality studies, as defined above, and the lack of data collection on some relevant outcomes is worrying. The prevalence of unemployment among

mentally disordered offenders shows that they have employment needs, so effective interventions are called for. It would be useful in future studies to compare work skills programmes, which may include IPS or other vocational interventions for three different groups of participants: non-offending people with mental disorder, offenders without mental disorder and offenders with mental disorder, to determine exactly which elements of these programmes are most successful for each group, and thus focus them better.

## **Conclusions**

Our conclusions must be regarded as tentative as the number and quality of studies in this field is limited. Nevertheless, there is some evidence to support inclusion of specific work skills programmes in the overall management and treatment of offenders with mental disorder. Future studies should be of theoretically driven programmes; Individual Placement Support (IPS) has shown some promise in other groups and should be included here. A standard set of relevant outcome measures should be applied to their evaluation. Follow-up of at least a year would be vital for testing the effectiveness of any work programme on engagement in competitive, paid employment as, even if skilled, offenders with mental disorder must constitute a hard to place group, and would be openly barred from some forms of employment.

## References

- Bevan, S, Gulliford, J, Steadman, K, Taaskila, T, Thomas, R & Moise, A (2013). Working with schizophrenia: pathways to employment, recovery and inclusion. 4-134
- Black, DW, Baumgard, CH, & Bell, SE & Kao, C (1996). Death rates in 71 men with antisocial personality disorder: a comparison with general population mortality. *Psychosomatics*, 37(2), 131-136. DOI: [http://dx.doi.org/10.1016/S0033-3182\(96\)71579-7](http://dx.doi.org/10.1016/S0033-3182(96)71579-7)
- Bond, GR (2004). Supported employment: evidence for an evidence-based practice. *Rehabilitation Journal*, 27 (4), 345–59.
- Boyce, M, Secker, J, Johnson, R, Floyd, M, Grove, B, Schneider, J & Slade, J (2008). Mental health service users' experiences of returning to paid employment. *Disability and Society*, 23(1) 77-88. DOI: 10.1080/09687590701725757
- Bradley, K. J. C. B. (2009). The Bradley Report: Lord Bradley's review of people with mental health problems or learning disabilities in the criminal justice system. London: Department of Health.
- Burns, T, Catty, J, Becker, T, Drake, RE., Fioritti, A, Knapp, M, & Wiersma, D (2007). The effectiveness of supported employment for people with severe mental illness: a randomised controlled trial. *The Lancet*. 370(9593), 1146-1152. DOI: 10.1016/S0140-6736(07)61516-5
- Crowther, R., Marshall, M., Bond, G., & Huxley, P. (2001). Vocational rehabilitation for people with severe mental illness. *Cochrane Database of Systematic Reviews*, Issue 2. DOI: 10.1002/14651858.CD003080



- Davies S, Clarke M, Hollin C, & Duggan C. (2007) Long-term outcomes after discharge from medium secure care: a cause for concern. *British Journal of Psychiatry*, 191, 70-74.  
DOI: 10.1192/bjp.bp.106.029215
- Dodge KA, Pettit GS, Bates JE & Valente E (1995). Social information processing patterns partially mediate the effect of early physical abuse on later conduct problems. *Journal of Abnormal Psychology*. 104, 632–643.
- Dunn, C & Seymour, A. (2008). Forensic Psychiatry and Vocational Rehabilitation: Where are we at? *British Journal of Occupational Therapy*, 71, 448-450.
- Evans, E, Hser, YI, & Huang, D. (2010). Employment Services Utilization and Outcomes among Substance Abusing Offenders Participating in California's Proposition 36 Drug Treatment Initiative. *The Journal of Behavioral Health Services & Research*, 38(4), 461-476.
- Farrington DP (2010). The developmental evidence base: psychosocial research. In Towl. GJ. & Crighton, DA. (eds). *Forensic Psychology*. BPS Blackwell. Blackwell Publishing Ltd.
- Fazel, S., & Danesh, J. (2002). Serious mental disorder in 23 000 prisoners: a systematic review of 62 surveys. *The Lancet*. 359(9306), 545-550.
- Hall, SM., Loeb, P, Coyne, K. & Cooper, J. (1981). Increasing employment in ex-heroin addicts I: Criminal justice sample. *Behavior Therapy*, 12(4), 443-452.
- Haslewood-Pocsik I, Brown, S & Spencer J. (2008) A not so well lit path: employers' perspectives on employing ex-offenders. *The Howard Journal*, 47 (1) 18-31.
- Health and Social Care Information Centre (2014). *Mental Health Bulletin: Annual Report*

form MHMDS Returns 2013-2014.

Higgins, J. P., Altman, D. G., Gøtzsche, P. C., Jüni, P., Moher, D., Oxman, A. D., ... & Sterne, J. A. (2011). The Cochrane Collaboration's tool for assessing risk of bias in randomised trials. *Bmj*, 343.

Imbach, D, Aebi, M, Metzke C, Bessler C & Steinhausen HC (2013). Internalizing and externalizing problems, depression, and self-esteem in non-detained male juvenile offenders. *Child and Adolescent Psychiatry and Mental Health* 7:7.  
doi:10.1186/1753-2000-7-7

Khalifa, N., Duggan, C., Stoffers, J., Huband, N., Völlm, B. A., Ferriter, M., & Lieb, K. (2010). Pharmacological interventions for antisocial personality disorder. *Cochrane Database Syst Rev*, 8. DOI: 10.1002/14651858.CD007667.pub2.

Kinoshita Y, Furukawa TA, Kinoshita K, Honyashiki M, Omor IM, Marshall M, et al (2013). Supported employment for adults with severe mental illness (Review). *Cochrane Database of Systematic Reviews*. Issue 9. Art. No.: CD008297.  
DOI:10.1002/14651858.CD008297.pub2.

Labour Force Survey (2013). Quarter 2, Office for National Statistics. Labour market Trends.

LePage, J. P., Washington, E. L., Lewis, A. A., Johnson, K. E., & Garcia-Rea, E. A. (2011). Effects of structured vocational services on job-search success in ex-offender veterans with mental illness: 3-month follow-up. *Journal of Rehabilitation Research & Development*, 48(3), 277-86.

LePage, J. P., Lewis, A. A., Washington, E. L., Davis, B., & Glasgow, A. (2013). Effects of structured vocational services in ex-offender veterans with mental illness: 6-month follow-up. *Journal of Rehabilitation Research & Development*, 50(2), 183-92.

Lipsey, M. W. (1995). What do we learn from 400 research studies on the effectiveness of treatment with juvenile delinquents? In J. McGuire (Ed.) What works: Reducing reoffending: Guidelines from research and practice (pp. 63-78). Chichester, UK: Wiley.

Mair G & May C. Offenders on Probation. London: Home Office, 1997.

May C, Sharma N & Stewart D (2008). Factors Linked to Reoffending: A one-year follow-up of prisoners who took part in the Resettlement Surveys 2001, 2003 and 2004. Ministry of Justice, London.

McMurrin M, Egan V, Richardson C & Ahmadi S (1999). Social problem solving in mentally disordered offenders: a brief report. *Criminal Behaviour and Mental Health*, 9: 315–322. DOI: 10.1002/cbm.329.

Ministry of Justice (MoJ) (2014a) Proven re-offending quarterly – January to December 2011.

Ministry of Justice (2014b). Experimental statistics from the 2013 MoJ.

Nagin, D & Waldfogel, J (1998) The effect of conviction on income through the life cycle. *International Review of Law and Economics*, 18, 25–40.

Rice, ME & Harris, GT (1997) The treatment of mentally disordered offenders. *Psychology, Public Policy and Law*. 3(1), 126-183. DOI:10.1037/1076-8971.3.1.126

Rinaldi, M, Perkins, R, Glynn, E, Montibeller, T, Clenaghan, M, & Rutherford, J (2008). Individual placement and support: from research to practice. *Advances in Psychiatric Treatment*, 14 (1), 50-60.

Sainsbury Centre Briefing 42 (2010). Beyond the gate: Securing Employment for offenders with mental health problems. London: Sainsbury Centre for Mental Health.

- Samele C, Keil J & Thomas, S (2009). Securing employment for offenders with mental health problems. The Sainsbury Centre for Mental Health: London. 1-12.
- Schaeffer, CM, Henggeler, SW, Ford, JD, Mann, M, Chang, R, & Chapman, JE (2014). RCT of a promising vocational/employment program for high-risk juvenile offenders. *Journal of substance abuse treatment*, 46(2), 134-143.
- Shaw Trust (2010). Mental Health: Still The Last Workplace Taboo? Shaw Trust.
- Singleton, N, Meltzer, G & Gatward, R. (1998) Psychiatric morbidity among prisoners in England and Wales. London: Office for national statistics.
- Sneed, Z, Koch, DS, Estes, H, & Quinn, J. (2006) Employment and psychosocial outcomes for offenders with mental illness. *International Journal of Psychosocial Rehabilitation*, 10(2), 103-112.
- Sterne, J.C, Higgins J.P, Reeves B.C on behalf of the development group for ACROBAT-NRSI (2014). A Cochrane Risk of Bias Assessment Tool: for Non-Randomized Studies of Interventions (ACROBAT- NRSI), Version 1.0.0. <http://www.riskofbias.info> [23 January 2015].
- Stewart, D. (2008) The Problems and Needs of Newly Sentenced Prisoners: Results from a national survey. London: Ministry of Justice.
- Twentyman, CT, Jensen, M, & Kloss, JD. (1978) Social skills training for the complex offender: Employment seeking skills. *Journal of clinical psychology*, 34(2), 320-326.
- Visher CA, Winterfield L & Coggeshall, MB. (2006) Systematic review of non-custodial employment programs: Impact on recidivism rates of ex-offenders. Campbell Systematic Reviews, 1 DOI: 10.4073/csr.2006.1

Völlm, B, Panesar, K & Carley, K. (2014) Promoting work-related activities in a high secure setting: exploration of staff and patients' views. *The Journal of Forensic Psychiatry & Psychology*, 25:1, 26-43, DOI: 10.1080/14789949.2013.875583

Western, B (2002). The impact of incarceration on wage mobility and inequality. *American Sociological Review*, 67, 526–546.

## **Appendix: Search strategy**

(Employ\* OR Work\* OR Job\* OR Vocation\* OR Occupation\* OR Profession\* OR Labour\* OR Dependency work OR D2W OR Exit work\* OR Progress work\* OR Centre OR Center employment opportunities OR America Work\* OR Project Rio OR RIO OR Re-integration OR Reintegration offender\* OR Ready work\* OR Lattice Foundation\* OR Phoenix Development fund\* OR Custody Work Unit\* OR Freshstart Initiative\* OR New deal Gateway\* OR Apex OR trust\* OR Opt Work Scheme\* OR Prisoner Passport\* OR Ambition Project\* OR Individual Placement Support\* OR IPS OR court employ\*) AND (Offend\* OR Felon\* OR Convict\* OR Delinquent\* OR Prison\* OR Crim\* OR Jail\* OR Remand\* OR Imprison\* OR Detentio\* OR Correctional\* OR Probation\* OR Inmate\* OR Mentally disordered Offender\* OR MDO OR Mentally ill Offender\* OR Forensic\* OR Sentence\* OR Detain\*) AND (Schizophreni\* OR Psych\* OR Mental\* OR Personality disorder\* OR intellectual disabilit\* OR Learning Disabilit\* OR anti-social\* OR antisocial\*)

**Table 1: Intervention & Study Characteristics**

Authors & Country	Sample Description	Sex/Mean Age/Ethnicity	Study design	Outcomes	Intervention	Comparative intervention(s)	Findings	Limitations
Schaeffer et al. (2014) Connecticut USA	Young offenders who had completed a family and evidence-based treatment programme for substance abuse, delinquent behaviour and associated problems.	83% male  Mean age 15.8 years  52% white Hispanic, 28% Black, 17% white/non-Hispanic, 3% mixed race.	Randomised control trial	<u>Primary</u> <ul style="list-style-type: none"> <li>• Employment</li> <li>• Education</li> </ul> <u>Secondary</u> <ul style="list-style-type: none"> <li>• Substance use</li> <li>• Mental disorder symptoms</li> <li>• Criminal activity/recidivism</li> </ul>	CRAFT (n=50) 6 month employment programme designed to train and place young offenders in employment in the building industry	Standard Educational & Vocational Services (n=47) delivered by the standard national school system and community organisations.	Participants in the CRAFT condition were 1.52 times more likely than the non-CRAFT group to obtain employment	<p>Severe economic downturn during study/follow-up not allowed for</p> <p>Most youths in the control condition only accessed educational services because of poor access to vocational services.</p> <p>Cannot be generalised beyond substance abusing young offenders</p> <p>Discrepancies in intensity of services</p> <p>Small sample size</p>
LePage et al. (2011) Texas, USA	Veterans from the “about face” vocational rehabilitation study, convicted of at least one felony and had a mental health diagnosis that could include substance dependence or substance	97 % male  Mean age 50.5 years  88.4% ethnic minority.	Non-randomised control trial	<u>Primary</u> <ul style="list-style-type: none"> <li>• Obtaining “competitive employment” within three months of enrolment</li> </ul>	<p>1. Self-study with About Face Vocational Manual (n=33) (Access to basic vocational resources, manual covers employment seeking domains, adaptive job skills developing resumés and interviews)</p> <p>2. About Face Vocational manual</p>	Basic Job search without manual (n=15) (access to basic vocational resources)	<p>Full programme superior to basic and self-study groups in helping participants to obtain employment.</p> <p>At 3-month follow up 24% in full programme group employed; no basic condition and 3% in self-help condition</p>	<p>Possible sampling bias: assignment to condition by week of enrolment</p> <p>Self-study group may not have used the manual effectively.</p> <p>Manual only users may have had false sense of confidence &amp; failed to practice skills sample other resources</p>

	dependence in remission				<i>full program</i> (n=21)(Access to basic vocational resources, manual and in-person interactive employment seeking classes)		participants employed.	Impact of substance abuse on employment not considered.  Short follow-up  Small sample size & narrow view of employment
LePage et al. (2013) Texas, USA	Veterans with mental illness & at least one felony conviction and/or substance dependence in/not in remission.  Part of the about face vocational rehabilitation study	97% male  Mean age 51  91% ethnic minority.	Non-randomised control trial	<b>Primary</b> <ul style="list-style-type: none"> <li>Number of veterans working at least 1 day in competitive employment during follow-up</li> <li>Time to obtain competitive employment</li> </ul>	<i>1. Self-study with About Face Vocational Manual</i> (n=42) (see above)  <i>2.About Face Vocational manual full program</i> (n=27) (see above)	<i>Basic Job search without manual</i> (n=42)(access to basic vocational resources)	Staff led vocational programmes using the About Face Vocational Manual improved vocational outcomes.  Self-study programme participants had no better vocational outcomes than basic vocational participants.	Differences in group sample sizes were a result of participants being assigned to conditions by week of enrolment as opposed to randomly.  Monthly raffle for completers to win \$100  Legal history not measured (possible sample selection bias)  Men given bus passes appeared motivated to stay in study, did not use them to seek work  Employment seeking wishes self-reported
Hall et al (1981) California, USA	Parolees or probationers with histories of heroin use, referred by county probation, state parole offices,	85% male  Mean age 33.9 years  Black 62%, Caucasian 34%, Hispanic 24%.	Randomised control trial	<b>Primary</b> <ul style="list-style-type: none"> <li>Employment</li> </ul> <b>Secondary</b> <ul style="list-style-type: none"> <li>Interview outcome</li> <li>Debriefing</li> </ul>	<i>3 hour meeting</i> (n=28)(employment resources and booklets) + <i>workshop</i> (interview training, instruction in completion of application forms,	<i>3 hour meeting</i> (n=24)(employment resources and booklets)	Workshop increased employment by 37% compared to treatment as usual	Small sample size  Subjects paid \$10 for interview participation  Workshop directed at job acquisition,



	or narcotics addict outpatient programme			questionnaire	job search procedures)			ignoring other job related factors  Effect of attention not explored  Outcome measures not clearly described
Evans et al. (2010) California, USA	Offenders receiving drug treatment	71% male  Mean age 36.8 years  50.6% White, 24.8 Hispanic, 18.1% African American, 6.3% other race/ethnic group.	Retrospective cohort study	<b><u>Primary</u></b> <ul style="list-style-type: none"> <li>• Employment – working full or part-time at the 12 month follow up.</li> </ul> <b><u>Secondary</u></b> <ul style="list-style-type: none"> <li>• Reoffending</li> <li>• Drug use &amp; treatment.</li> </ul>	<i>Drug treatment with employment service (n=192)s</i> (at least one contact with employment specialist, counsellor or social worker on employment opportunities, training or education)	<i>Drug treatment without employment services(n=126 I)</i> (no contact with employment specialist etc. as previous column)	Few offenders reported receiving employment services (13%).  Receipt of employment services associated with greater improvements in employment-related behaviours, treatment completion &, in turn, later employment	Receiving employment services self-reported – possibly affected by recall errors or misrepresentation  Other services received not documented, so potential confounding effect not analysed  Reoffending & substance misuse outcomes not clearly described  Vocational rehab counsellor service not assessed  County variations in proposition 36 programmes not explained.

Twentyman et al.(1978) Unknown location	11 unemployed male probationers who were participating voluntarily in the complex offender project.	100% male  Age not given  Ethnicity not stated.	Randomised controlled trial	<u><b>Primary</b></u> <ul style="list-style-type: none"> <li>• Interview performance</li> <li>• Applications</li> <li>• Tough Situations Test</li> <li>• Employment</li> </ul>	<i>Vocational Training</i> (n=6) (Four 1 hour sessions on where to find jobs, writing a resumé, how to interview and how to handle tough interview situations) + <i>Incentives</i> (e.g. meeting with staff daily and being paid \$1.00 for every job application up to five a day)	<i>Vocational Training</i> (n=5) as previously, but no incentives	Vocational training changes job interview behaviours.  Vocational training without incentives was more effective in changing behaviour & cognition. Participants believed they were more likely to obtain employment and obtain it more quickly than the incentive group	Small sample size  Cost effectiveness of treatment or other economic outcomes not clearly described  Differences on tough situations test at pre-test between groups
--	---	---	-----------------------------	--	---	---	--	--

Diagram 1: Search results

